

**Tiffany, Bruce**

---

**From:** Renaud, Rick  
**Sent:** Friday, September 16, 2005 10:42 AM  
**To:** Salazar, Raleigh; Elwood, Karol  
**Cc:** Tiffany, Bruce

**Any concerns with this request (see attached e-mail).**

Rick Renaud  
Airport Engineer  
King County International Airport  
(206) 296-7427

9/16/2005

KCSlip4 56692

SEA423008

## **Tiffany, Bruce**

---

**From:** Tiffany, Bruce  
**Sent:** Wednesday, September 07, 2005 2:21 PM  
**To:** Renaud, Rick  
**Subject:** FW: Lower Duwamish Air Sampling

Hi Rick:

In regards to our past discussions, it looks like the airport terminal is the best location for placing the rainfall samplers. I drove around the surrounding neighborhoods and it looks like the best spot.

If everything is okay with others at KCIA, we would like to place the first rainfall sampler by the end of this month or in early October.

Also, if we receive the approval, please give me a name and contact phone number so we can coordinate sampler placement/retrieval.

Thanks,

Bruce

-----Original Message-----

**From:** Hulsizer, Elsie  
**Sent:** Tuesday, September 06, 2005 5:03 PM  
**To:** Renaud, Rick  
**Cc:** Tiffany, Bruce  
**Subject:** RE: Lower Duwamish Air Sampling

Sorry to take so long to reply; I just got back from two weeks of vacation today.

PCBs are only one of the chemicals of concern for the Duwamish; phthalates are another, particularly bis(2-ethylhexyl) phthalate. We pretty much know where the PCBs are coming from, although we may have some questions about particular sites and specific sources. The same can't be said for phthalates. We started an investigation into phthalate sources with a series of tests of different products that businesses use in the Duwamish area. The results led us to conclude that vehicle use (brakepads, tires, fan belts, etc.) could be one of the major sources of phthalates. That in turn led us to investigate how the phthalates from vehicle use were getting into the stormwater. Air deposition is one of the most likely routes.

The Duwamish Source Control Work Group has focused more on phthalates than PCBs because phthalates pose a greater risk for ongoing contamination than do PCBs. PCBs are considered to be historic sources while phthalates are ongoing.

You can read more about this in our Progress Reports. The first two are on line now and the third will be on line soon at: <http://dnr.metrokc.gov/wlr/indwaste/duwamish/phthalates.htm>

-----Original Message-----

**From:** Renaud, Rick  
**Sent:** Tuesday, August 23, 2005 4:19 PM  
**To:** Hulsizer, Elsie  
**Subject:** FW: Lower Duwamish Air Sampling

Elsie?

Rick Renaud  
Airport Engineer  
King County International Airport  
(206) 296-7427

-----Original Message-----

**From:** Tiffany, Bruce  
**Sent:** Friday, August 19, 2005 4:29 PM  
**To:** Renaud, Rick  
**Subject:** RE: Lower Duwamish Air Sampling

My understanding is that EPA wanted us to look at the air deposition pathway for phthalates. The analysis of PAH is really an add-on since they can be analyzed by the same analytical method. If you want more specifics on the source control decisions, you will need to talk with Elsie.

-----Original Message-----

**From:** Renaud, Rick  
**Sent:** Friday, August 19, 2005 4:19 PM  
**To:** Tiffany, Bruce  
**Subject:** RE: Lower Duwamish Air Sampling

Why not PCBs? Isn't that principal reason that the county is remediating the Duwamish and performing source control?

Rick Renaud  
Airport Engineer  
King County International Airport  
(206) 296-7427

-----Original Message-----

**From:** Tiffany, Bruce  
**Sent:** Friday, August 19, 2005 2:01 PM  
**To:** Renaud, Rick  
**Subject:** RE: Lower Duwamish Air Sampling

Hi Rick:

The sampler could be at ground level, although the roof-top of a one-storey building would be ideal. As long as it is about 30-feet back from traffic, it should be okay. I don't want this to be a big deal for others - I don't want anyone concerned about some "strange looking metallic object" on a rooftop. To give you an idea of what I'm talking about, here is a photo of our new rain sampler prototype:

<< File: IMG\_0032.JPG >>

In the field, it will be wrapped in aluminum foil to minimize the photodegradation of organic chemicals. Granted, it looks pretty ugly, but it should work okay.

For the first round, we just looked at PAH and phthalates. We will look for the same analytes for the second round. No sampling for pesticides/PCBs or metals is currently planned.

For more information on the first round of sampling, here are the files associated with my technical memorandum. This memorandum is included as an appendix of the recent source control report to the EPA.

<< File: P1TM-Table5.pdf >> << File: P1TM-TableA1.pdf >> << File: P1TM-TableA2.pdf >>  
<< File: PAD\_Stations.pdf >> << File: Laboratory Narrative for Rain Water Sampling  
events.pdf >> << File: LDW-PDS-Phase1-TechMemo.pdf >> << File: P1TM-Figure1.pdf >>  
<< File: P1TM-Table1.pdf >> << File: P1TM-Table2.pdf >> << File: P1TM-Table3.pdf >>  
<< File: P1TM-Table4.pdf >>

Thanks,

Bruce

-----Original Message-----

**From:** Renaud, Rick  
**Sent:** Friday, August 19, 2005 1:34 PM  
**To:** Tiffany, Bruce

**Subject:** RE: Lower Duwamish Air Sampling

We have limited rooftop sampling points on the southern portion of the airport, especially over 30 ft from traffic. The southern most location that would meet your criteria is the Air Traffic Control tower. This might run into some complications with the ATC union, but we could ask. The next most available site would be the Airport terminal but might not be quite 30 ft above traffic.

Do you have any results from the first sampling round? Did you monitor for PCBs and Zinc?

Rick Renaud  
Airport Engineer  
King County International Airport  
(206) 296-7427

-----Original Message-----

**From:** Tiffany, Bruce  
**Sent:** Tuesday, August 16, 2005 2:37 PM  
**To:** Renaud, Rick  
**Subject:** Lower Duwamish Air Sampling

Hi Rick:

As you know, IW is involved with the source control activities for the Lower Duwamish cleanup project. As part of the source control efforts, we are tasked with evaluating the contributions from the air deposition pathway. To date, we have completed one round of rainfall (i.e., wet deposition) sampling at four stations in the Duwamish (see attached).

<< File: P1TM-Figure1.pdf >>

In order to improve our coverage of the Duwamish, we would like to collect samples at the King County International Airport. The current four stations provide adequate coverage of the Duwamish, but it would be helpful to have another station further to the south. If it is feasible, we would like to sample at the southern portion of the King County International Airport. The ideal spot would be an accessible location on a building rooftop. In addition, the rainfall sampler should be located greater than 30 horizontal feet from vehicular traffic.

Our goal is to collect one sample per month for a year (Sep. '05 - Aug. '06).

Please let me know if this is possible. If so, I would be glad to meet with you and others at KCIA to discuss this further.

Thanks,

Bruce

## Tiffany, Bruce

---

**From:** Tiffany, Bruce  
**Sent:** Friday, August 19, 2005 2:01 PM  
**To:** Renaud, Rick  
**Subject:** RE: Lower Duwamish Air Sampling

Hi Rick:

The sampler could be at ground level, although the roof-top of a one-storey building would be ideal. As long as it is about 30-feet back from traffic, it should be okay. I don't want this to be a big deal for others - I don't want anyone concerned about some "strange looking metallic object" on a rooftop. To give you an idea of what I'm talking about, here is a photo of our new rain sampler prototype:



IMG\_0032.JPG

In the field, it will be wrapped in aluminum foil to minimize the photodegradation of organic chemicals. Granted, it looks pretty ugly, but it should work okay.

For the first round, we just looked at PAH and phthalates. We will look for the same analytes for the second round. No sampling for pesticides/PCBs or metals is currently planned.

For more information on the first round of sampling, here are the files associated with my technical memorandum. This memorandum is included as an appendix of the recent source control report to the EPA.



P1TM-Table5.pdf



P1TM-TableA1.pdf



P1TM-TableA2.pdf



PAD\_Stations.pdf



Laboratory  
Narrative for Rain ...



LDW-PDS-Phase1-T  
echMemo.pdf



P1TM-Figure1.pdf



P1TM-Table1.pdf



P1TM-Table2.pdf



P1TM-Table3.pdf



P1TM-Table4.pdf

Thanks,

Bruce

-----Original Message-----

**From:** Renaud, Rick  
**Sent:** Friday, August 19, 2005 1:34 PM  
**To:** Tiffany, Bruce  
**Subject:** RE: Lower Duwamish Air Sampling

We have limited rooftop sampling points on the southern portion of the airport, especially over 30 ft from traffic. The southern most location that would meet your criteria is the Air Traffic Control tower. This might run into some complications with the ATC union, but we could ask. The next most available site would be the Airport terminal but might not be quite 30 ft above traffic.

Do you have any results from the first sampling round? Did you monitor for PCBs and Zinc?

Rick Renaud  
Airport Engineer  
King County International Airport  
(206) 296-7427

-----Original Message-----

**From:** Tiffany, Bruce

**Sent:** Tuesday, August 16, 2005 2:37 PM

**To:** Renaud, Rick

**Subject:** Lower Duwamish Air Sampling

Hi Rick:

As you know, IW is involved with the source control activities for the Lower Duwamish cleanup project. As part of the source control efforts, we are tasked with evaluating the contributions from the air deposition pathway. To date, we have completed one round of rainfall (i.e., wet deposition) sampling at four stations in the Duwamish (see attached).

<< File: PITM-Figure1.pdf >>

In order to improve our coverage of the Duwamish, we would like to collect samples at the King County International Airport. The current four stations provide adequate coverage of the Duwamish, but it would be helpful to have another station further to the south. If it is feasible, we would like to sample at the southern portion of the King County International Airport. The ideal spot would be an accessible location on a building rooftop. In addition, the rainfall sampler should be located greater than 30 horizontal feet from vehicular traffic.

Our goal is to collect one sample per month for a year (Sep. '05 - Aug. '06).

Please let me know if this is possible. If so, I would be glad to meet with you and others at KCIA to discuss this further.

Thanks,

Bruce

## Tiffany, Bruce

---

**From:** Tiffany, Bruce  
**Sent:** Tuesday, August 16, 2005 2:37 PM  
**To:** Renaud, Rick  
**Subject:** Lower Duwamish Air Sampling

Hi Rick:

As you know, IW is involved with the source control activities for the Lower Duwamish cleanup project. As part of the source control efforts, we are tasked with evaluating the contributions from the air deposition pathway. To date, we have completed one round of rainfall (i.e., wet deposition) sampling at four stations in the Duwamish (see attached).



P1TM-Figure1.pdf

In order to improve our coverage of the Duwamish, we would like to collect samples at the King County International Airport. The current four stations provide adequate coverage of the Duwamish, but it would be helpful to have another station further to the south. If it is feasible, we would like to sample at the southern portion of the King County International Airport. The ideal spot would be an accessible location on a building rooftop. In addition, the rainfall sampler should be located greater than 30 horizontal feet from vehicular traffic.

Our goal is to collect one sample per month for a year (Sep. '05 - Aug. '06).

Please let me know if this is possible. If so, I would be glad to meet with you and others at KCIA to discuss this further.

Thanks,

Bruce

